

# Nomograms for Manometer Constants

By MALCOLM DIXON

*5 diagrams. 6d. net*

These nomograms were published in the *Biochemical Journal*, Volume 39, 1945. They are here reprinted in a form convenient for laboratory use either in their book, or cut out and pasted upon cards. By their use the constants of Warburg (constant-volume) and Barcroft (differential) manometers can be obtained in a small fraction of the time required for calculation by the usual methods.

CAMBRIDGE UNIVERSITY PRESS

# Recent Advances in the Chemistry and Biology of Sea Water

By H. W. HARVEY

*29 text illustrations and diagrams. 10s. 6d. net*

This book summarizes the large amount of important work that has been done in recent years on the relation of plant and animal life in the sea to the chemical constituents of sea water. Much of this work has been done, in fact, by Dr Harvey himself and other members of the staff of the Marine Biological Laboratory at Plymouth, since the publication of Dr Harvey's earlier book (in 1927). This new material will be essential to all marine biologists, both in England and the U.S.A., and will also afford the best outline of an important part of active biological work for the ordinary biologist and advanced student.

CAMBRIDGE UNIVERSITY PRESS

# THE JOURNAL OF PHYSIOLOGY

VOL. 105, No. 1

JULY 1946

## CONTENTS

HEBB, CATHERINE AND NIMMO-SMITH, R. H. THE PARTITION OF POTASSIUM BETWEEN THE ISOLATED LUNG OF THE DOG AND ITS PERFUSATE WITH PARTICULAR REFERENCE TO THE ACTION OF ADRENALINE.

IRVING, J. T. THE EFFECT OF DIETARY RESTRICTION UPON THE INCISOR TEETH OF RACHITIC RATS.

ADRIAN, E. D. ROD AND CONE COMPONENTS IN THE ELECTRIC RESPONSE OF THE EYE.

EULER, U. S. v. THE PRESENCE OF A SYMPATHOMIMETIC SUBSTANCE IN EXTRACTS OF MAMMALIAN HEART.

GRANIT, RAGNAR. THE DISTRIBUTION OF EXCITATION AND INHIBITION IN SINGLE-FIBRE RESPONSES FROM A POLARIZED RETINA.

BELOFF, A. AND PETERS, R. A. AN INVESTIGATION FOR THE PRESENCE OF A SKIN PROTEASE INHIBITORY FACTOR IN BURNED SKIN.

GREGORY, R. A. CHANGES IN INTESTINAL TONE AND MOTILITY ASSOCIATED WITH NAUSEA AND VOMITING.

HANCOX, N. M. ON THE OCCURRENCE IN VITRO OF CELLS RESEMBLING OSTEOCLASTS.

REEVE, E. B. AND ARMIN, J. OBSERVATIONS ON PLASMA VOLUME ESTIMATIONS WITH THE DYE T 1824.

DOWNMAN, C. B. B. AND McSWINEY, B. A. REFLEXES ELICITED BY VISCERAL STIMULATION IN THE ACUTE SPINAL ANIMAL.

*Proceedings of the Physiological Society*

CAMBRIDGE UNIVERSITY PRESS

BENTLEY HOUSE, 200 EUSTON ROAD, LONDON, N.W. 1

# Books *supplied from stock or obtained to order on*

BIOCHEMISTRY, PHYSIOLOGY,  
MEDICINE, PHYSICAL, ORGANIC  
AND INORGANIC CHEMISTRY.

*Scientific Lending  
Library* New books and latest  
editions obtainable promptly.

ANNUAL SUBSCRIPTION, TOWN OR  
COUNTRY, FROM ONE GUINEA

## *Second-Hand Books*

140, GOWER STREET, W.C.1.

Large stock of recent editions  
Back volumes of Scientific Journals  
Old and Rare Scientific Books

**H. K. LEWIS & Co. Ltd.**

LONDON: 136 Gower St., W.C.1

Telephone EUSton 4282 (5 lines)

## BIOTIN SOLUTION IN AMPOULES

for use in the microbiological assay  
of members of the vitamin B  
complex

Ampoules containing 0.1  $\mu\text{g}$ . of biotin  
dissolved in 1 ml. of a sterile phosphate  
buffer are now available. One ampoule  
contains sufficient biotin for 125 ml. of  
the medium described by E. C. Barton-  
Wright (*Biochem. J.*, 1944, **38**, 314, and  
*Analyst*, 1945, **70**, 283), and thus a worker  
can prepare conveniently the quantity  
of medium needed for conducting an  
isolated assay.

*Supplied in boxes of 6 ampoules*  
3s. 0d. per box

THE BRITISH DRUG HOUSES LTD.  
GRAHAM STREET LONDON N.1

## The Royal Institute of Chemistry of Great Britain and Ireland

PATRON: H.M. THE KING

THE INSTITUTE OF CHEMISTRY was  
established in 1877 to provide the Govern-  
ment and the public with the means of  
recognising those who have been properly  
trained and proved to be competent to  
practise chemistry as a profession. In 1885  
the Institute was granted a Royal Charter  
with authority to grant certificates of com-  
petency, and to register such persons. The  
aims of the Institute include the elevation  
of the profession and the maintenance of  
the efficiency, integrity and usefulness of  
persons practising the same, by compelling  
the observance of strict rules of member-  
ship and by setting up a high standard of  
scientific and practical efficiency. The de-  
signation "Royal" was conferred on the  
Institute by a Supplemental Charter in  
1944.

Particulars of the Regulations and Exami-  
nations of the Institute can be obtained  
(free) on application to the Registrar

THE ROYAL INSTITUTE  
OF CHEMISTRY

30 Russell Square, London, W.C.1

## 'ROCHE' BIOCHEMICALS for RESEARCH

	PACKINGS (weight in grams)
Aneurin hydrochloride	1.0
Riboflavin	0.5
Calcium <i>d</i> -pantothenate	0.2
Nicotinic acid	5.0
Nicotinamide	5.0
Pyridoxin (limited quantities)	0.5
Ascorbic acid	1.0 and 10.0
$\alpha$ -Tocopheryl acetate	1.0

*Limited quantities of other bio-  
chemicals, particularly amino-acids  
are also available.*

DETAILS ON REQUEST

**ROCHE PRODUCTS LTD.**

*Pioneers in Vitamin Research*

WELWYN GARDEN CITY, ENGLAND

ESTABLISHED 1889

TELEPHONE: GULLIVER 1653

**E. K. BOWMAN LTD**

61, 61a, 63 HOLMES ROAD  
KENTISH TOWN  
LONDON, N.W.5

ANIMAL CAGES AND TUBULAR STEEL RACKS  
INSTRUMENT TROLLEYS  
AND  
BEDSIDE LOCKERS  
MADE FROM  
SEAMLESS STEEL TUBE

ANY EQUIPMENT MADE TO YOUR  
REQUIREMENTS IN ALL METALS

**Open Letter to Readers**  
of the  
**Biochemical Journal**

Dear Sirs,

We are in the market to purchase SCIENTIFIC JOURNALS of every description, including the serial publications of the LEARNED SOCIETIES.

Of these we require complete sets, long or shorter runs, which may be bound or unbound. We also wish to purchase *The Biochemical Journal*.

We are prepared at all times to offer attractive prices.

We are, Gentlemen,  
Yours faithfully,

WM. DAWSON & SONS  
LTD.

102 Wigmore Street  
London, W. 1  
Phone: Welbeck 8433

**Actions of Radiations**  
**on Living Cells**

By D. E. LEA

4 plates, 61 text-figures. 2Is. net

This book gives an account of certain of the simplest and most fundamental actions of X-rays and other ionizing radiations on living cells. It does not survey the whole field, but deals chiefly with the mechanism of those actions of radiation which are well enough understood at present to allow a detailed discussion. It is a book of importance for medical, genetical, and biological investigators, and for physicists interested in biology.

**CAMBRIDGE**  
**UNIVERSITY PRESS**